



# UF1000F~UF1008F

## ULTRAFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 800 Volt **CURRENT** 10 Ampere

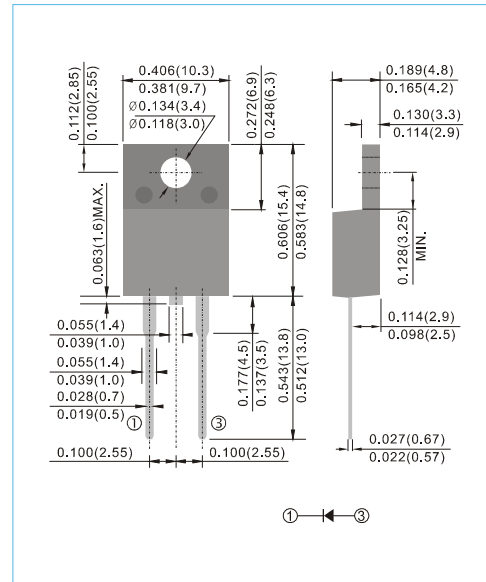
**ITO-220AC** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Ultra fast recovery time, high voltage.
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: ITO-220AC full molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Weight: 0.055 ounces, 1.56 grams.
- Marking: Part number



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	UF1000F	UF1001F	UF1002F	UF1003F	UF1004F	UF1006F	UF1008F	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	V
Maximum Average Forward Current at $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	10							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150							A
Maximum Forward Voltage at 10A	$V_F$	1		1.3		1.7		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	1 500							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	80					50		pF
Maximum Reverse Recovery Time (Note 2)	$t_{rr}$	50					100		ns
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2							$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

#### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
2. Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=-1\text{A}$ ,  $I_{rr}=-0.25\text{A}$ .
3. Thermal resistance from junction to case.
4. Both bonding and chip structure are available.



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## TYPICAL CHARACTERISTIC CURVES

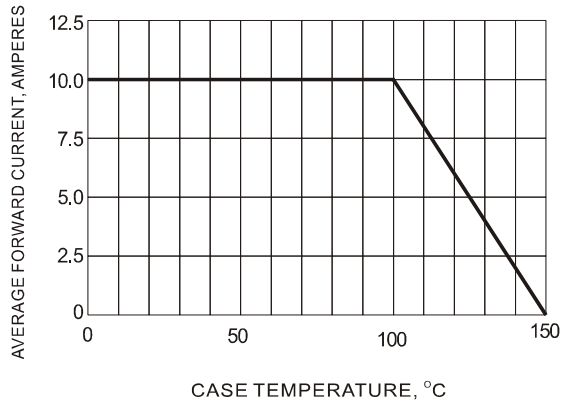


Fig.1 FORWARD CURRENT DERATING CURVE

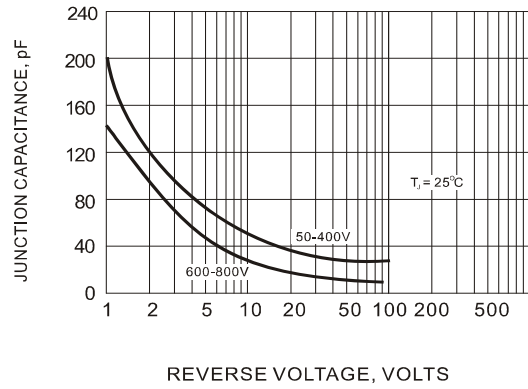


Fig.2 TYPICAL JUNCTION CAPACITANCES

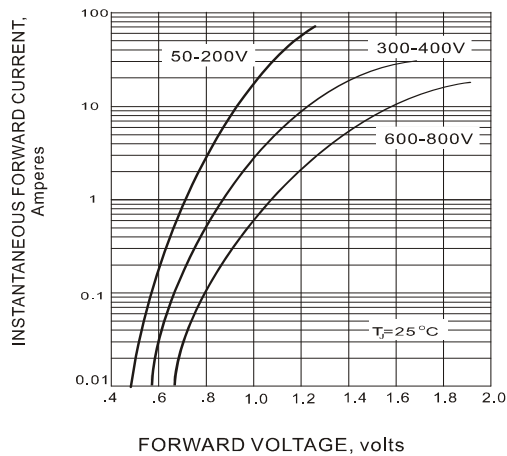


Fig.3 FORWARD CHARACTERISTICS

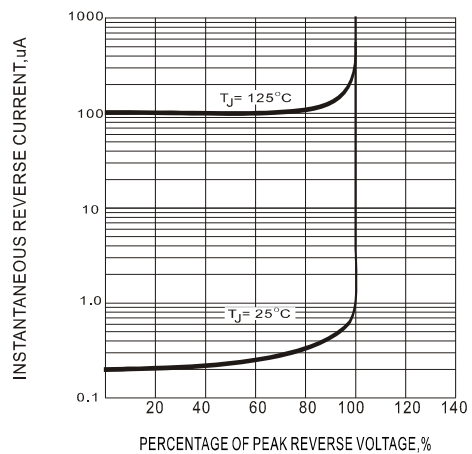


Fig.4 TYPICAL REVERSE CHARACTERISTICS

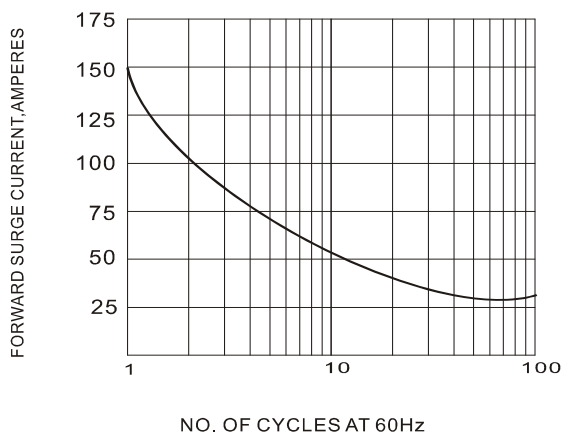


Fig.5 PEAK FORWARD SURGE CURRENT



## UF1000F~UF1008F

### PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
UF1000F_T0_00001	ITO-220AC	50 pcs / Tube	UF1000F	Halogen free